



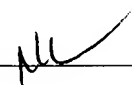
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,766	01/23/2002	Roland Treutlein	WET 0106 PUS	8455
	7590	11/13/2003	EXAMINER	
Robert P Renke Artz & Artz 28333 Telegraph Road Suite 250 Southfield, MI 48034			NGUYEN, CHAU N	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/031,766	Applicant(s) TREUTLEIN ET AL. 	
	Examiner Chau N Nguyen	Art Unit 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature of "multi-layered laminated films forming a stacked composite film sealingly engaging one side of a functional element" as claimed in claim 46 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 46-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 46, line 5, "a stacked composite film" is unclear to how this film relates to the "halogen-free film" recited early in the claim.

Claims 47-55 are included in this rejection because of dependency.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahigashi et al. (JP5-314824).

JP'824 discloses a multi-layered laminated film (2) comprising a first film (4), a second film (5) and a laminating adhesive (6,7) between the first and second films, the multi-layered laminated film sealingly engaging one side of a functional element (1). JP'824 does not disclose at least 3 of the multi-layered laminated film forming a stacked composite film sealingly engaging one side of the functional element. However, it would have been obvious that depending on the specific use of the resulting cable of JP'824, such as to further protect the conductors, one skilled in the art would provide at least 3 multi-layered laminated films (2) to form a stacked composite film since it has been held that merely duplicating the essential working part, the laminated film, of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

JP'824 also discloses the function element being a metallic conductor material (re claim 47), and each laminated film being identical to one another (re claim 48).

7. Claims 49-52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Hake et al. (5,861,578).

JP'824 discloses the invention substantially as claimed except for the second film of each laminated film comprising a thermally activated substance which can be polyesters (re claims 49 and 54), and the adhesive being polyurethanes (re claims 51 and 52). Hake et al. discloses a cable comprising a laminated structure (16,18, 20) wherein the second layer (16) of the laminate comprising polyester and the middle layer of the laminate comprising polyurethane (col. 3, lines 63-67). It would have been obvious to one skilled in the art to use polyesters for the second film and polyurethanes for the adhesive layer of each laminated film of JP'824 since these materials are known in the art for being used to cover metallic conductor as taught by Hake et al. It would also have been obvious to one skilled in the art to use polyamide films for the first and second films of each laminated film of JP'824 since polyamide film is known in the art for being used to cover metallic conductors as taught by Hake et al. (re claim 50).

8. Claims 53 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Hols (6,071,551).

The modified JP'824 composite film discloses the invention substantially as claimed. JP'824 does not disclose the wet application weight of the laminating adhesive being 2 g/m² to 40 g/m² (re claim 53). Hols discloses an invention

relating to a laminate structure, wherein a mixture was applied to a base layer in a wet application weight of 5 g/m^2 . It would have been obvious to one skilled in the art to apply the teaching of Hols in each laminated film of JP'824 to increase the moisture resistance of the laminated film. Re claim 56, JP'824 discloses an inherent method of making the composite film, comprising applying an adhesive to a first film (4) of a first laminated film, joining the second film (5) to the adhesive to form the first laminated film, thereafter providing a function element between the first laminated film and a second laminated film produced in the same way as the first laminated film. In other words, JP'824 discloses the complex first and second tapes (2) being formed first, then thereafter bonding the tapes on the upper as well as the lower parts of the conductors.

JP'824 does not disclose drying the first film in a drying tunnel at temperatures from about 80 degrees C to 180 degrees C, nor curing the laminating adhesive. Hols discloses that the adhesive layer was applied to the base layer and then the layer was subjected to a heating temperature of 80 degrees C to dry and cure the adhesive (col. 4, lines 60-63). It would have been obvious to one skilled in the art to dry the adhesive of JP'824 at a temperature of 80 degrees C before applying the second film to cure the adhesive as taught by Hols.

9. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Escallier et al.

Claim 55 additionally recites the first and second films, each having a thickness of 10 gm to 100gm. Escallier et al. discloses a composite film comprising at least two laminated films, each having a first film and a second film, each having a thickness of from 10 gm to 100 gm. it would have been obvious to one skilled in the art to use the thickness as taught by Escallier for the first and second films of JP'824 to meet the specific use of the resulting composite film since it is well-known in the art that using thinner film would provide a highly flexible composite film.

10. Claims 57, 58 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Hols as applied to claim 56 above, and further in view of Hake et al.

The combination of JP'824 and Hols discloses the invention substantially as claimed including the second film being coated with a substance. Hake et al. discloses a cable comprising a laminated structure (16,18,20). Hake et al. discloses that polyurethane (col. 3, lines 63-67) is known in the art for being used to cover metallic conductor. it would have been obvious to one skilled in the art to use

polyurethanes for the coating substance of JP'824 since polyurethane is known in the art for being used to cover metallic conductor as taught by Hake et al. (re claims 57 and 61). It would also have been obvious to one skilled in the art to use polyamide films for the first and second films of each laminated film of JP'824 since polyamide film is known in the art for being used to cover metallic conductors as taught by Hake et al. (re claim 58).

11. Claims 59, 60 and 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'834 in view of Hols as applied to claim 56 above, and further in view of Escallier et al.

The combination of JP'824 and Hols discloses the invention substantially as claimed including the wet application weight of the laminating adhesive being 2 g/m² to 40 g/m² (re claim 60). The modified JP'824 does not disclose the laminating adhesive being acrylates (re claim 59), nor the first and second films each having a thickness of from 10 µm to 100 µm (re claim 62).

Escallier et al. discloses a composite film comprising acrylates as laminating adhesive and each of the first and second films having a thickness of 10 µm to 100 µm. It would have been obvious to one skilled in the art to use acrylates for the laminating adhesive of JP'824 since acrylates is known for being used in a

composite film as taught by Escallier et al. It would also have been obvious to one skilled in the art to use the thickness as taught by Escallier et al. for the first and second films of JP'824 to meet the specific use of the resulting composite film since it is well-known in the art that using thinner film would provide a highly flexible composite film.

Re claims 63 and 64, the modified JP'824 composite film does not disclose a vacuum deposited copper as the functional element. However, it would have been obvious to one skilled in the art to use a vacuum deposited copper layer as the function element in the cable of JP'824 since a cable comprising a vacuum deposited copper layer as the function element is known in the art.

Response to Arguments

12. Applicant's arguments with respect to claim 46 have been considered but are moot in view of the new ground(s) of rejection except for the following.

Regarding the JP'824, applicant argues that there is no suggestion to combine or to modify the JP'824 reference, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in

the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to do so is found in the knowledge generally available to one of ordinary skill in the art. The fact that more laminated films are used, would further protect the functional element.

With respect to claims 49-52, and 54, applicant argues that no reason can be shown why one of skill in the art would modify the JP'824 reference to add a thermally activated substance. As disclosed on page 5 of the English language translation of the specification, the thermally activated substance improves the sealing characteristics of the composite film to the functional element. This is unrelated to the mechanical flexibility properties of the resulting device which is the primary concern of the JP :824 reference. This argument is not found persuasive. The Office Action does not add a thermally activated substance in the JP'824 reference. Claims 49 and 54 of the present invention call for the second film in the laminated film comprising a thermally activated substance which can be polyester. The JP'824 already has a second layer in the laminated film. The JP'824 is modified to have the second layer comprising a thermally activated substance which is polyester and which is known for being used to cover metallic conductors

as taught by Hake et al. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

With respect to claims 53, 56-58 and 61, applicant again argues that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to do so is found in the references themselves.

With regard to claim 55, Applicants submit that the combination of JP '824 and Escallier set forth in paragraph five of the Office Action, would not render

obvious because JP '824 or Escallier, either alone or in combination, do not disclose or suggest a halogen free composite film comprising at least 3 to N sealable, multi-layered laminate films. In response to this argument, it is found that JP'824 does disclose a halogen free composite film, and the modified composite film of JP'824 does comprise at least 3 multi-layered laminated films.

Summary

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 308-0693. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308 3682. The fax phone number for the organization where this application or proceeding is assigned is (703) 305 3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Chau N Nguyen
Primary Examiner
Art Unit 2831